

# IoT Based Health Monitoring Device

Manoj Deshmukh<sup>1</sup>, Vaishnavi Sharadkumar Deshmukh<sup>2</sup>, Akanksha Anil Jadhav<sup>3</sup>, Trupti Govind Sonar<sup>4</sup>

Assistant Professor, Department of Electronics and Telecommunication<sup>1</sup>

UG Students Department of Electronics and Telecommunication<sup>2,3,4</sup>

SVERI's College of Engineering Pandharpur, Solapur, Maharashtra, India

**Abstract:** *If patients aren't given the right care when they need it, their health will be terribly compromised, and a lot of infections could spread. The past few years have made challenging to practise patient observation. As a result, a solution is needed so that doctors can always keep an eye on their patients whenever needed. An answer is anticipated for this with the occurrence of the web of Things (IoT) devices in recent years. The importance of health in our daily lives Researchers and industry professionals will find this paper beneficial in understanding the enormous potential of IoT in the medical domain and identifying significant IoT problems. To attempt to carry out the daily work properly, good health is essential. With the use of smartphones and Internet of Things technologies, this project intends to create a sensor that can be used to track a patient's heartbeat in real-time. In this project, a portable framework is shown that uses a Wi-Fi module to continuously monitor the patient's heart rate, temperature, and various room-related metrics. There is a suggested IoT-enabled smart home and health monitoring system where the permitted personal data may be accessed using any IoT platform and the specific disease is diagnosed by a doctor even at a distance based on the output values received. An easy way to keep track of your blood pressure that is both affordable and convenient. An Internet of Things-based blood pressure monitoring system employing wireless technologies is created by fusing a Node MCU, a pressure sensor, and other Internet of Things principles. The project's goal is to put up a network that will allow concerned parties to access patients' blood pressure measurements from a distance. Results can be accessed on a mobile, tablet, laptop, and other handheld devices using Bluetooth and Wi-Fi technologies.*

**Keywords:** ESP32, GSM, Blynk Cloud, Node MCU

## REFERENCES

- [1]. S.H. Almotiri, M. A. Khan, and M. A. Alghamdi. Mobile health (m- health) system in the context of iot. In 2016 IEEE 4th International Conference on Future Internet of Things and Cloud Workshops (FiCloudW), pages 39–42, Aug 2016.
- [2]. Gulraiz J. Joyia, Rao M. Liaqat, Aftab Farooq, and Saad Rehman, Internet of Medical Things (IOMT): Applications, Benefits and Future Challenges in Healthcare Domain, Journal of Communications Vol. 12, No. 4, April 2017.
- [3]. Shubham Banka, Isha Madan and S.S. Saranya, Smart Healthcare Monitoring using IoT. International Journal of Applied Engineering Research ISSN 0973-4562 Volume 13, Number 15, pp. 11984-11989, 2018.
- [4]. K. Perumal, M. Manohar, A Survey on Internet of Things: Case Studies, Applications, and Future Directions, In Internet of Things: Novel Advances and Envisioned Applications, Springer International Publishing, (2017) 281-297.
- [5]. S.M. Riazulislam, Daehankwak, M.H.K.M.H., Kwak, K.S.: The Internet of Things for Health Care: A Comprehensive Survey. In: IEEE Access (2015).
- [6]. P. Rizwan, K. Suresh. Design and development of low investment smart hospital using Internet of things through innovative approaches, Biomedical Research. 28(11) (2017).
- [7]. K.R. Darshan and K.R. Anandakumar, "A comprehensive review on usage of internet of things (IoT) in healthcare system," in Proc. International Conference on Emerging Research in Electronics, Computer Science and Technology, 2015.
- [8]. Internet of Things (IoT): Number of Connected Devices Worldwide From 2012 to 2020 (in billions)

